

**TWO NEW SPECIES OF *ELAMPUS*
(HYMENOPTERA: CHRYSIDIDAE) FROM PUERTO RICO
AND CUBA WITH NOTES ON *ELAMPUS VIRIDIS* CRESSON**

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Abstract

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Two new species, *Elampus puertoricensis* Huber from Puerto Rico and *E. cubanus* Huber from Cuba, are described. The relationship of these species to other western hemisphere *Elampus* is discussed. *E. rotundus* Huber and Pengelly is newly synonymized with *E. viridis* Cresson. A key to species is presented.

Introduction

Only one species of *Elampus*, *E. viridis* Cresson from Cuba (Cresson 1865), has been described from the Caribbean region. Two new species are described herein, one from Puerto Rico and one from Cuba. The Puerto Rican species represents the first record of the family Chrysididae from the island (Wolcott 1936, 1941).

Most of the terminology used in this paper is the same as described in a revision of the North American *Elampus* (Huber and Pengelly 1977).

Key to Cuban and Puerto Rican species of *Elampus*

- 1. Apical truncation of third tergite circular or oval with a small ventral notch (Fig. 1) 2
- Apical truncation of third tergite crescent shaped (Fig. 6) *cubanus* Huber n. sp.
- 2. Head, thorax, and abdomen with extensive copper, gold, or red..... *puertoricensis* Huber n. sp.
- Head, thorax, and abdomen green *viridis* Cresson

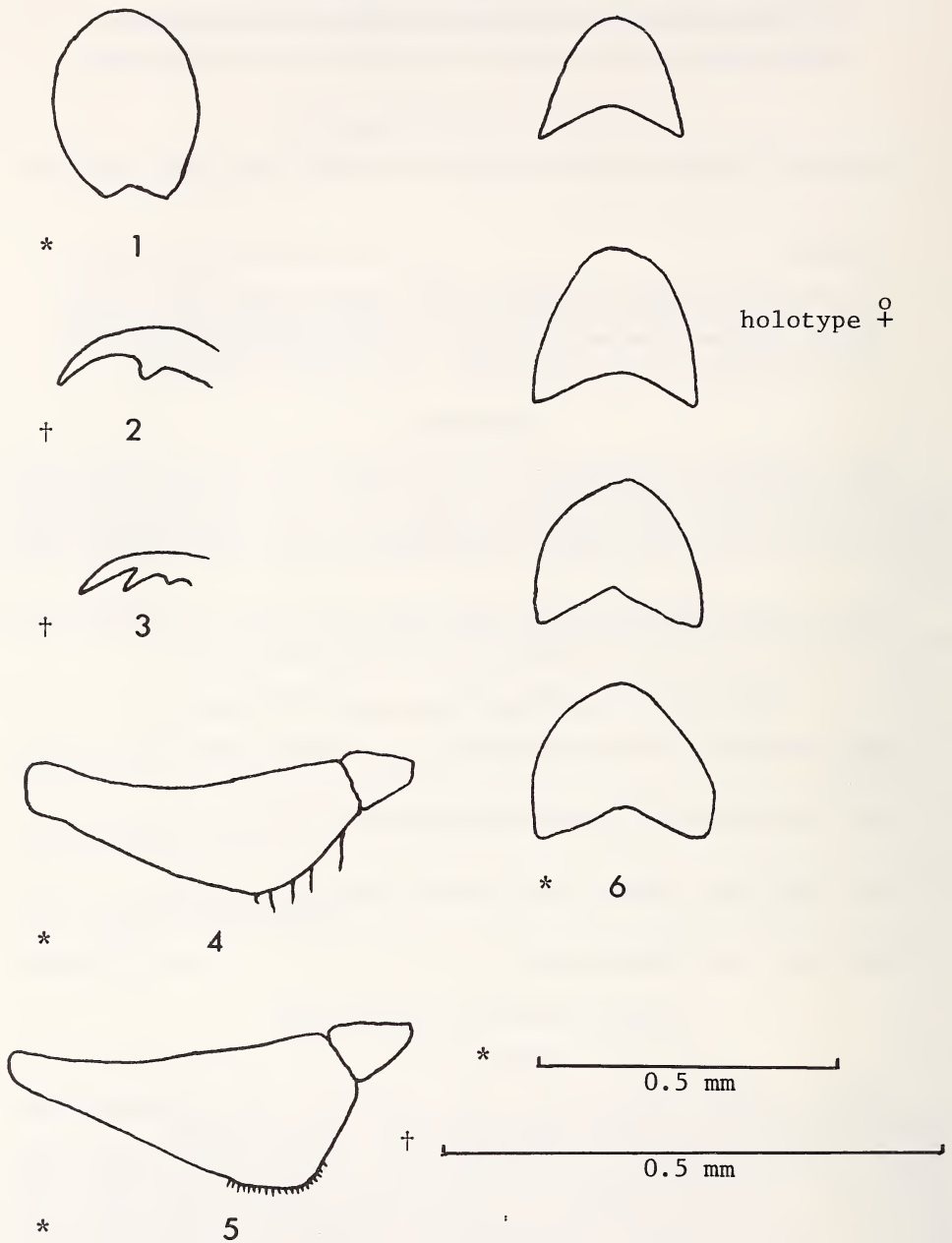
***Elampus puertoricensis* Huber n. sp.**

(Figs. 1, 2, 4)

Holotype female. "Puerto Rico, Lajas, Sept.-Nov. 1960, M. Beauchamp." (United States National Museum, Washington, D.C. Type no. 73819).

Female (holotype). Length 5.4 mm. Bright green with gold and/or copper tinge or reflections on the following: scape, vertex especially in front of anterior ocellus, genae above, pronotum medially, in punctures of mesopleura and scutellum, in basal and lateral punctures of postscutellum, underside of postscutellar blade, propodeum, legs except for tarsi and apex of tibiae, posterior part of first and second tergites, third tergite except apically and along lateral margins. The copper colour is most pronounced laterally on the second tergite. Mesothorax red becom-

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FIGURES 1-6. 1, 2, 4, *Elampus puertoricensis* Huber n. sp., female. 1, face view of apical truncation of abdomen; 2, tarsal claw; 4, lateral view of fore femur. 3, 5, 6, *Elampus cubanus* Huber, n. sp., female. 3, tarsal claw; 5, lateral view of fore femur; 6, face view of apical truncation of abdomen showing variations.

ing gold anteriorly between notaulices. Rims of punctures on scutellum, apex of postscutellar blade, and junction of propodeum and first tergite black. Flagellum and pedicel dark brown. Apex of tibiae and tarsi brownish-yellow. Fore wing clear basally, lightly brown-stained beyond venation. Sternites with a narrow, coppery-purple, longitudinal line medially. Lateral margins and apex of third tergite pink. Apical truncation of third tergite light brown above, dark brown below, with a dark brown rim.

Scapal basin smooth above, roughened to rugose below and laterally. Genal fringe somewhat setose, setae one ocellar-diameter in length and irregularly spaced. Pronotal punctures medium in size, densely spaced to contiguous medially. Base of fore femora below barely angular (Fig. 4). Tarsal claws with one small, vertical inner tooth (Fig. 2). First tergite smooth above basal pit with a few small, scattered punctures lateral to it and mostly minute, densely to moderately spaced punctures along posterior margin. Second tergite with a narrow, indistinct, longitudinal smooth line medially extending about half the length of the tergite. Apical truncation of third tergite oval with a very shallow ventral notch (Fig. 1).

Measurements (in mm) and ratios as follows: width/length of head 2.4; width/length of pronotum 1.7; width/length of tergites II and III 1.6, 1.6 respectively; width/height of apical truncation 0.50; length of flagellomeres I/II 1.7; fore wing length 3.6; stigmal length 0.33; radial sector length 0.18; distance between compound eyes 0.91; distance from median ocellus to clypeal margin 0.97; length of scape 0.44; POL 0.29; OOL 0.26.

Male. Unknown.

Biology. Unknown.

Remarks. The combination of the smooth, coppery-gold scapal basin, red and gold mesothorax, oval apical truncation with a very shallow ventral notch, and the single vertical, inner tooth in each tarsal claw separates *E. puertoricensis* from other *Elampus*.

E. puertoricensis is most closely related to *E. viridis* Cresson from North America and Cuba on the basis of the very short radial sector and the single, vertical tooth in the tarsal claw. Together with *E. gayi* Spinola from South America, these three species have in common a circular or oval apical truncation of the third tergite. The rather long, sparse genal fringe is unusual in that it is a male character, the females having a short, dense, setose fringe, at least in the North American *Elampus*.

Elampus cubanus Huber n. sp.

(Figs. 3, 5, 6)

Holotype female. [Cuba] "Guane P. Rio, P. Alayo IX-1967. "(Biosystematics Research Institute, Ottawa).

Female (holotype). Length 4.8 mm. Green with occasional violet or blue tinge or reflections on the following: scape, scapal basin, genae, pro- and mesonotum, mesopleura. Flagellum and pedicel brown. Apex of tibiae and tarsi yellowish-brown. Fore wings tinged with brown beyond venation. Apical truncation of third tergite brown. Rims of punctures of scutellum, postscutellum, and apex of postscutellar blade black.

Scapal basin rugose. Genal fringe short, dense, setose. Punctures on dorsum of pronotum moderately spaced medially. Base of fore femora below rounded with

a short, dense, setose fringe (Fig. 5). Tarsal claws with two inner teeth (Fig. 3). First tergite with minute, scattered punctures around basal pit, sparsely spaced on remainder of tergite. Second tergite with minute, densely spaced punctures. Apical truncation of third tergite crescent shaped, ventral notch less than half the height of truncation (Fig. 6).

Measurements (in mm) and ratios as follows: width/length of head 2.4; width/length of pronotum 1.9; width/length of tergites II and III 1.3, 1.2 respectively; width/height of apical truncation 1.1; length of flagellomere I/II 1.6; fore wing length 3.3; stigma length 0.26; radial sector length 0.18; distance between compound eyes 0.82; distance from median ocellus to clypeal margin 0.88; length of scape 0.38; POL 0.28; OOL 0.26.

Male. Unknown.

Biology. Unknown.

Paratypes: CUBA: Guane (1 ♀); Santiago de las Vegas, Habana (1 ♀) (University of Guelph, Guelph).

Other material examined. Baracoa (1 ♀) (United States National Museum); Guane P. Rio, IX-1967 (1 ♀) (P. Alayo) (University of California, Davis).

Remarks. The length of three specimens (2 paratypes and specimen from Baracoa) ranged from 3.8-4.3 mm. The colour of the apical truncation of the third tergite varied from yellow to brown, and the shape varied as shown in Fig. 6. Punctuation on the first tergite varied from smooth to moderate, and on the pronotum from moderate to sparse.

The combination of the rugose scapal basin and two inner teeth in each claw relates this species to *E. hyalinus* (Aaron) from North America. It differs from the latter by the brownish fore wings.

Alayo (1974) recorded *E. viridis* from Guane P. Rio and Santiago de las Vegas, Habana. These two records should be referred to *E. cubanus* n. sp. Possibly his other locality records should be referred to *E. cubanus* as well.

Elampus viridis Cresson

Elampus viridis Cresson, 1865. *Proc. ent. Soc. Phil.* **4**: 103. Original description.

Elampus viridis: Norton, 1879. *Trans. Am. ent. Soc.* **7**: 235. Redescription.

Elampus viridis: Provancher, 1881. *Nat. Canad.* **12**: 303. Redescription. (?) Canadian record.

Elampus viridis: Aaron, 1885. *Trans. Am. ent. Soc.* **12**: 219. Synonymy under *Notozus marginatus* Patton.

Ellampus viridis: Mocsary, 1889. *Monogr. Chrysididarum.* p. 78. Descriptions quoted.

Ellampus viridis: Dalla Torre, 1892. *Catalogus Hymenopterorum* **4**: 20. World catalogue.

Notozus viridis: Bischoff, 1913. *Gen. Insectorum* **151**: 7. World catalogue.

Elampus viridis: Cresson, 1928. *Mem. Am. ent. Soc.* **5**: 30. Type material.

Elampus viridis: Bodenstern, 1951. *U.S. Dep. Agric., Agric. Monogr.* **2**: 719. Synonymy under *E. marginatus* (Patton).

Elampus viridis: Alayo, 1974. *Acad. Cien. Cuba. Serie Biol.* **52**: 12. Cuban records (= *E. cubanus* n. sp.).

Elampus rotundus Huber & Pengelly, 1977. *Proc. ent. Soc. Ont.* **108**: 92 NEW SYNONYMY.

Remarks. The holotype of *E. viridis* was examined in the Academy of Natural Sciences, Philadelphia. It is glued to a card and is in very poor condition with the head, pronotum, left wings, and part or all of four legs missing. The right fore wing and two complete legs are glued separately to the card. There is a pin hole through the mesothorax. Despite its condition three important characters *viz.*, the apical truncation of the third tergite, tarsal claws, and radial sector are visible and permit the synonymy of *E. rotundus* Huber and Pengelly with *E. viridis* to be made. The holotype is labelled as follows: "Cuba" (white label), "Type No. 2682" (red label), "3 teeth in claw" (pink handwritten label), "*Elampus viridis* (Type) Cresson. The specimen was almost destroyed in some way and was at first pinned" (pink handwritten label). There is, in fact, only a single tooth in each tarsal claw. A complete description and distribution in North America of this species is given (as *E. rotundus*) by Huber and Pengelly (1977). Since then, six specimens of *E. viridis* labelled "Havana, Cuba, Baker" were seen in the University of California, Davis. The Provancher record of *E. viridis* occurring in Canada needs confirmation as his collection in Quebec City does not contain any specimens referable to this species.

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